

Notice of Allowability

Application No.

09/976,237

Examiner

Barry Choobin

Applicant(s)

FROST ET AL.

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to November 4, 2004.
2. ☒ The allowed claim(s) is/are 13-20 and 37-59 (renumbered as 1-31).
3. ☒ The drawings filed on 21 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/11/02, 2/6/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other pto1449, 6/28/020, 2/5/02.

DETAILED ACTION

Election/Restrictions

1. Claims 1-12 and 21-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group I, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 4, 2004.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on February 5, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

3. The information disclosure statement (IDS) submitted on February 11, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

4. The information disclosure statement (IDS) submitted on February 6, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

5. The information disclosure statement (IDS) submitted on June 28, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

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This application is in condition for allowance except for the presence of claims 1-12 and 21-36 to an invention non-elected without traverse. Accordingly, claims 1-12 and 21-36 been cancelled.

EXAMINER'S AMENDMENT

6. This application is in condition for allowance except for the presence of claims 1-12 and 21-36 to an invention non-elected without traverse. Accordingly, claim 1-12 and 21-36 been cancelled.

The application has been amended as follows: in claims please cancel claims 1-12 and 21-36.

Now Claims 13-20 and 37-59 are pending.

REASON FOR ALLOWANCE

7. The following is an examiner's statement of reasons for allowance: Prior art fails to teach or fairly suggest a method or a system for imaging a plurality of encoded beads entrained in a flow of fluid to identify a compound attached to each encoded bead comprising; dispersing the light that is traveling along the collection path into a plurality of light beams, as a function of a plurality of different discriminable characteristics of the light, said plurality of different discriminable characteristics being indicative of an identity of each reporter that may be attached to the encoded bead; in combination with other element of independent claim 13, 37 and 46.

As to claim 44, prior art fails to teach or fairly suggest a flow imaging system for sequentially imaging and decoding a plurality of encoded beads in a fluid comprising; a

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signal processor coupled to receive the output signals from said the plurality of regions, said signal processor processing the output signals to decode an identity of the compounds as a function of the reporters present on the encoded bead; in combination with other elements of independent claim 44 and 51.

As to claim 58, prior art fails to teach or fairly suggest a method of employing an oligo library encoded on beads for at least one of a DNA sequencing, a polymorphism analysis, and an expression analysis, said method comprising the steps of: a hybridizing an amplified component produced by any of steps d-h in relationship to said encoded bead library; analyzing the encoded beads using the imaging data to identify oligo sequences of encoded beads hybridized in step (g); and (i) constructing sequence contigs from the oligo sequences identified in step (h) to identify one of a genomic DNA sequence, a polymorphic allele, and an expressed gene; in combination to other elements of claim 58.

Although Basiji et al disclose an imaging and analyzing parameters of small moving object such as cell comprising a light source on a moving cell through an imaging system and the light is collected and dispersed so that it can be imaged, but Basiji et al fails to teach or fairly suggest the claimed invention as specified in claims 13, 37, 44, 46, 51 and 58.

Now claims 13-20 and 37-59 are allowed (renumbered as claims 1-31).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

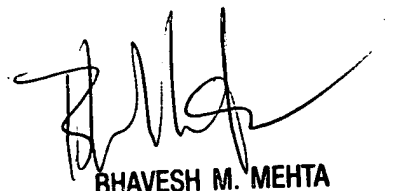
CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barry Choobin
January 7, 2005



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